

**REMARKS**

**Summary of the Office Action**

Claims 1-3 and 5-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shin (US 5,828,433) in view of Naito (US 5,334,860).

**Summary of the Response to the Office Action**

Applicants amend claim 1 to further define the invention. Accordingly, claims 1-3 and 5-28 are pending with claims 11-28 having being withdrawn from consideration.

**All Claims Define Allowable Subject Matter**

Claims 1-3 and 5-10 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Shin (US 5,828,433) in view of Naito (US 5,334,860). Applicants respectfully traverse the rejection as being based upon references that neither teach nor suggest the novel combination of features recited by amended independent claim 1, and hence dependent claims 2, 3, and 5-10.

Independent claim 1, as amended, recites an array substrate for a liquid crystal display device including, in part, “a gate insulating layer on the gate line” and “a data line on the gate insulating layer.” In addition, amended independent claim 1 recites a pixel electrode that is “formed during a same process as the second data line” and that is “formed of the same material as the second data line.”

In contrast to Applicants’ claimed invention, Shin explicitly requires, as shown in FIG. 3, formation of the source pad 2A directly upon the substrate 1 and the ITO pattern 6A directly upon the source pad 2A. Accordingly, Applicants respectfully assert that Shin fails to teach or suggest an array substrate for a liquid crystal display device including, in part, “a gate insulating

layer on the gate line” and “a data line on the gate insulating layer,” as required by amended independent claim 1.

In further contrast to Applicants’ claimed invention, Naito explicitly requires that the data wire 18 consists of a lower metal film 18a and an upper metal film 18b. Specifically, Naito discloses (col. 6, lines 5-9) that “[t]he films 18a and 18b are made of Al or of Ti-containing-Al,” and discloses (col. 9, lines 52-54) that “the lower and upper metal films may be made of another conductive metal, such as Cr, Ta, a Ta-Mo alloy, Au, or Ag.” In addition, although Naito may not explicitly disclose the material with which to form the pixel electrode 12, Applicants respectfully presume that it is formed of a transparent material, such as an ITO-type material, for example. Furthermore, Naito clearly discloses that the pixel electrode 12 is subsequently formed well after formation of the data wire 18. Thus, Applicants respectfully assert that Naito fails to teach or suggest a pixel electrode that is “formed during a same process as the second data line” and that is “formed of the same material as the second data line,” as required by amended independent claim 1.

Accordingly, Applicants respectfully assert that Shin and Naito, whether taken singly or combined, fail to teach or suggest the combination of features recited by amended independent claim 1, and hence dependent claims 2, 3, and 5-10. Specifically, Applicants respectfully assert that Shin fails to teach or suggest an array substrate for a liquid crystal display device including, in part, “a gate insulating layer on the gate line” and “a data line on the gate insulating layer,” and that Naito fails to teach or suggest a pixel electrode that is “formed during a same process as the second data line” and that is “formed of the same material as the second data line,” all of which are required by amended independent claim 1.

In addition, Applicants respectfully assert that Naito fails to remedy the deficiencies of Shin, and that Shin fails to remedy the deficiencies of Naito. In other words, Applicants respectfully assert that both Naito and Shin are mutually exclusive of each other for purposes of establishing a *prima facie* case of obviousness under 35 U.S.C. § 103(a).

Therefore, for the reason set forth above, Applicants respectfully assert that the rejection under 35 U.S.C. § 103(a) should be withdrawn because none of the applied prior art references, whether taken individually or in combination, teach or suggest the novel combination of features clearly recited in amended independent claim 1, and hence dependent claims 2, 3, and 5-10.

### **CONCLUSION**

In view of the foregoing, Applicants respectfully request reconsideration and timely allowance of the pending claims. Should the Examiner believe that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under

37 C.F.R. § 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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